**EAST Search History**

**EAST Search History (Prior Art)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|-------------|-----|------------------|---------|-----------|
| L1 | 314 | (264/621).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/07/27 14:50 |
| L2 | 420 | (264/628).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/07/27 14:50 |
| L3 | 16 | (L1 or L2) and @pd>="20110214" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/07/27 14:50 |
| S2 | 2 | "4933307".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 14:58 |
| S3 | 0 | "100121427".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 15:00 |
| S4 | 2 | "0121427".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 15:01 |
| S5 | 0 | "1019940009707" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 15:08 |

| S6 | 294 | (264/621).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/02/11 15:20 |
|---|---|---|---|---|---|---|
| S7 | 362 | (264/628).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/02/11 15:21 |
| S8 | 15 | S6 and S7 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 15:21 |
| S9 | 641 | S6 or S7 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 15:21 |
| S10 | 51 | (US-20050239628-$ or US-20070210493-$ or US-20050225013-$ or US-20050218565-$ or US-20050200055-$ or US-20040253279-$ or US-20030151173-$ or US-20020175440-$ or US-20100030388-$).did. or (US-4933307-$ or US-6984671-$ or US-6605648-$ or US-7482390-$ or US-7455798-$ or US-7419772-$ or US-7384988-$ or US-7381362-$ or US-7354542-$ or US-7100400-$ or US-7001568-$ or US-6680013-$ or US-6667261-$ or US-6620368-$ or US-6616873-$ or US-6571582-$ or US-6551546-$ or US-6519976-$ or US-6444162-$ or US-6410631-$ or US-6374638-$ or US-6341701-$ or US-6299822-$ or US-6258305-$ or US-6223563-$).did. or (US-6209357-$ or US-5944866-$ or US-5871684-$ or US-5854154-$ or US-5827457-$ or US-5772735-$ or US-5665289-$ or US-5429780-$ or US-5076980-$ | US-PGPUB; USPAT; JPO | OR | ON | 2009/02/11 16:36 |

| | | or US-5015605-$ or US-4818732-$ or US-4765818-$ or US-4640807-$ or US-4105426-$).did. or (JP-01138143-$ or JP-01138136-$).did. | | | | |
|---|---|---|---|---|---|---|
| S11 | 41 | S10 and gel$5 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 16:36 |
| S12 | 16 | S10 and (sphere or spheroid $3 or globe) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/11 16:37 |
| S13 | 1554 | silica near3 (sphere or spheroid$3 or globe) and gel | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 10:16 |
| S14 | 4 | "3855172".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 10:42 |
| S15 | 51 | ("2751366" \| "2776267" \| "3251800" \| "3417028" \| "3540884").PN. OR ("3855172").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2009/02/12 10:46 |
| S16 | 52 | (US-20050239628-$ or US-20070210493-$ or US-20050225013-$ or US-20050218565-$ or US-20050200055-$ or US-20040253279-$ or US-20030151173-$ or US-20020175440-$ or US-20100030388-$).did. or (US-4933307-$ or US-6984671-$ or US-6605648-$ or US-7482390-$ or US-7455798-$ or US-7419772-$ or US-7384988-$ or US-7381362-$ or US-7354542-$ or US-7100400-$ or US-7001568-$ or US-6680013-$ or US-6667261-$ or US-6620368-$ or US-6616873-$ or US-6571582-$ or US-6551546-$ or US-6519976-$ or US-6444162-$ or US-6410631-$ | US-PGPUB; USPAT; JPO | OR | ON | 2009/02/12 11:20 |

| | | or US-6374638-$ or US-6341701-$ or US-6299822-$ or US-6258305-$ or US-6254998-$ or US-6223563-$). did. or (US-6209357-$ or US-5944866-$ or US-5871684-$ or US-5854154-$ or US-5827457-$ or US-5772735-$ or US-5665289-$ or US-5429780-$ or US-5076980-$ or US-5015605-$ or US-4818732-$ or US-4765818-$ or US-4640807-$ or US-4105426-$ or US-3855172-$). did. or (JP-01138143-$ or JP-01138136-$).did. | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| S17 | 28 | S16 and (furnace or kiln) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 11:20 |
| S18 | 3 | S16 and rotary | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 11:24 |
| S19 | 52 | (US-20050239628-$ or US-20070210493-$ or US-20050225013-$ or US-20050218565-$ or US-20050200055-$ or US-20040253279-$ or US-20030151173-$ or US-20020175440-$ or US-20010030388-$).did. or (US-4933307-$ or US-6984671-$ or US-6605648-$ or US-7482390-$ or US-7455798-$ or US-7419772-$ or US-7384988-$ or US-7381362-$ or US-7354542-$ or US-7100400-$ or US-7001568-$ or US-6680013-$ or US-6667261-$ or US-6620368-$ or US-6616873-$ or US-6571582-$ or US-6551546-$ or US-6519976-$ or US-6444162-$ or US-6410631-$ or US-6374638-$ or US-6341701-$ or US-6299822-$ or US-6258305-$ or US-6254998-$ or US-6223563-$). did. or (US-6209357-$ or US-5944866-$ or US-5871684-$ or US-5854154-$ or US- | US-PGPUB; USPAT; JPO | OR | ON | 2009/02/12 13:55 |

|  |  | 5827457-$ or US-5772735-$ or US-5665289-$ or US-5429780-$ or US-5076980-$ or US-5015605-$ or US-4818732-$ or US-4765818-$ or US-4640807-$ or US-4105426-$ or US-3855172-$).did. or (JP-01138143-$ or JP-01138136-$).did. |  |  |  |  |
|------|------|------|------|------|------|------|
| S20 | 26 | S19 and tube | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 13:55 |
| S21 | 1554 | silica near3 (sphere or spheroid$3 or globe) and gel | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 14:06 |
| S22 | 37 | S21 and (tube near furnace) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 14:06 |
| S23 | 2 | "5912397".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 14:19 |
| S24 | 2 | "5938805".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/12 14:20 |
| S25 | 52 | (US-20050239628-$ or US-20070210493-$ or US-20050225013-$ or US-20050218565-$ or US-20050200055-$ or US-20040253279-$ or US-20030151173-$ or US-20020175440-$ or US-20010030388-$).did. or (US-4933307-$ or US-6984671-$ or US-6605648-$ or US-7482390-$ or US-7455798-$ or US-7419772-$ or US-7384988-$ or US-7381362-$ or US-7354542-$ or US-7100400-$ or US-7001568-$ or US-6680013-$ or US- | US-PGPUB; USPAT; JPO | OR | OFF | 2009/10/28 15:29 |

| | | 6667261-$ or US-6620368-$ or US-6616873-$ or US-6571582-$ or US-6551546-$ or US-6519976-$ or US-6444162-$ or US-6410631-$ or US-6374638-$ or US-6341701-$ or US-6299822-$ or US-6258305-$ or US-6254998-$ or US-6223563-$).did. or (US-6209357-$ or US-5944866-$ or US-5871684-$ or US-5854154-$ or US-5827457-$ or US-5772735-$ or US-5665289-$ or US-5429780-$ or US-5076980-$ or US-5015605-$ or US-4818732-$ or US-4765818-$ or US-4640807-$ or US-4105426-$ or US-3855172-$).did. or (JP-01138143-$ or JP-01138136-$).did. | | | | |
|---|---|---|---|---|---|---|
| S26 | 12 | S25 and ("C/min" or "C/hr") | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/10/28 15:29 |
| S27 | 2 | ("5650129").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/10/29 16:17 |
| S28 | 11 | ("2161186" | "2699376" | "3493341" | "4857290" | "4913966" | "5063179" | "5354548").PN. OR ("5650129").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2009/10/29 16:18 |
| S29 | 38 | ("2480520" | "2641044" | "2645588" | "2886460" | "2891875" | "2988520" | "3183194" | "3558508" | "3980586" | "3983055").PN. OR ("4392988").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2009/10/30 14:04 |
| S30 | 6 | (US-5900450-$ or US-5650129-$ or US-5624875-$ or US-4978641-$ or US-4871693-$ or US-4392988-$).did. | USPAT | OR | OFF | 2009/10/30 14:05 |
| S31 | 129 | (502/10).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/10/30 14:18 |

| S32 | 16 | S31 and rotary | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/10/30 14:18 |
|-----|-----|----------------|--------------------------------------------------------|-----|-----|-------------------|
| S33 | 78 | S31 and silica | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/10/30 14:23 |
| S34 | 3 | ("2492167").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/11/02 09:39 |
| S35 | 298 | (264/621).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/11/02 10:59 |
| S36 | 383 | (264/628).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/11/02 10:59 |
| S37 | 666 | S35 or S36 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/11/02 10:59 |
| S38 | 25 | S37 and @pd>="20090210" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/11/02 10:59 |
| S41 | 81 | (US-20050239628-$ or US-20070210493-$ or US-20050225013-$ or US-20050218565-$ or US-20050200055-$ or US-20040253279-$ or US-20030151173-$ or US-20020175440-$ or US-20010030388-$ or US-20020111262-$).did. or (US-4933307-$ or US-6984671-$ or US-6605648-$ or US-7482390-$ or US-7455798-$ | US-PGPUB; USPAT; USOCR; JPO | OR | ON | 2010/08/10 11:06 |

or US-7419772-$ or US-
7384988-$ or US-7381362-$
or US-7354542-$ or US-
7100400-$ or US-7001568-$
or US-6680013-$ or US-
6667261-$ or US-6620368-$
or US-6616873-$ or US-
6571582-$ or US-6551546-$
or US-6519976-$ or US-
6444162-$ or US-6410631-$
or US-6374638-$ or US-
6341701-$ or US-6299822-$
or US-6258305-$ or US-
6254998-$ or US-6223563-$).
did. or (US-6209357-$ or US-
5944866-$ or US-5871684-$
or US-5854154-$ or US-
5827457-$ or US-5772735-$
or US-5665289-$ or US-
5429780-$ or US-5076980-$
or US-5015605-$ or US-
4818732-$ or US-4765818-$
or US-4640807-$ or US-
4105426-$ or US-3855172-$
or US-5650129-$ or US-
5063179-$ or US-4913966-$
or US-3493341-$ or US-
5900450-$ or US-5624875-$
or US-4978641-$ or US-
4871693-$ or US-4392988-$
or US-3558508-$ or US-
3183194-$ or US-3663165-$).
did. or (US-6150300-$ or US-
5976478-$ or US-5861134-$
or US-5821186-$ or US-
2492167-$ or US-5236683-$
or US-5145578-$ or US-
4983369-$ or US-4894357-$
or US-4777154-$ or US-
4637990-$ or US-3923688-$).
did. or (US-3493341-$ or US-
3558508-$ or US-3183194-$
or US-2397350-$).did. or (JP-
01138143-$ or JP-01138136-
$).did.

| S42 | 15 | S41 and ("C/min" or "C/hr") | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2010/08/10 11:06 |
| S43 | 11 | S41 and ("C/hour" or "C/minute" or "C/s" or "C/sec" or "C/second") | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2010/08/10 11:31 |

| S44 | 308 | (264/621).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2010/08/10<br>11:43 |
|-----|------|-----------------|------|----|-----|------------|
| S45 | 398 | (264/628).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2010/08/10<br>11:43 |
| S46 | 690 | S44 or S45 | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2010/08/10<br>11:43 |
| S47 | 0 | S46 and @pd>="200910292" | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2010/08/10<br>11:43 |
| S48 | 3812 | ((501/12) or (501/39) or<br>(501/53) or (501/80) or<br>(501/133) or (501/154)).<br>CCLS. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2010/08/10<br>11:46 |
| S49 | 1172 | S48 and gel | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2010/08/10<br>11:46 |
| S50 | 269 | S49 and (spher$4 or spheroid<br>$3 or globe or orb) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2010/08/10<br>11:47 |
| S51 | 233 | S50 and (silica or (silicon adj<br>oxide) or (silicon adj dioxide)<br>or "SiO.sub.2") | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2010/08/10<br>11:54 |
| S52 | 24 | ("2328644" \| "2883347" \|<br>"3717486" \| "3719510" \|<br>"3744984").PN. OR<br>("3867156").URPN. | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2010/08/10<br>15:59 |
| S53 | 12 | ("2883347").URPN. | USPAT | OR | ON | 2010/08/10<br>16:35 |

| S54 | 11 | ("2161186" | "2699376" | "3493341" | "4857290" | "4913966" | "5063179" | "5354548").PN. OR ("5650129").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2010/08/10 16:48 |
|-----|-----|------|------|------|------|------|
| S57 | 6 | ("5064783" | "5401445" | "5419860").PN. OR ("6616873").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2011/02/14 16:00 |
| S58 | 30 | ("3579719" | "4316822" | "4367166" | "4894189" | "5248489" | "5281445" | "5358921" | "5387740" | "5439867" | "Re27214").PN. OR ("6150300").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2011/02/15 11:29 |
| S59 | 658 | ((65/21.1) or (65/21.3) or (65/21.4) or (65/21.5)).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:24 |
| S60 | 114 | S59 and (gel or sol or xerogel or aerogel or aerosil) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/02/15 17:25 |
| S61 | 60386 | ("366").CLAS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:45 |
| S62 | 79 | S61 and ((silica or (silicon adj oxide) or (silicon adj dioxide) or "SIO.sub.2") near2 (gel or aerogel or xerogel or aerosil)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/02/15 17:45 |
| S63 | 62770 | ("34").CLAS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:46 |
| S64 | 576 | S63 and ((silica or (silicon adj oxide) or (silicon adj dioxide) or "SIO.sub.2") near2 (gel or aerogel or xerogel or aerosil)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/02/15 17:46 |

| S65 | 68 | S64 and rotary | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/02/15 17:46 |
| S66 | 312 | (264/621).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:52 |
| S67 | 406 | (264/628).CCLS. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:52 |
| S68 | 12 | (S66 or S67) and @pd>="20100809" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 17:52 |

## EAST Search History (Interference)

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--------------|-----|------------------|---------|------------|
| L4 | 186 | kim-sun$uk$.in. or hwang-soon $cheol$.in. or chun-myong $cheul$.in. | US-PGPUB; USPAT; UPAD | OR | OFF | 2011/07/27 14:51 |
| L5 | 12 | L4 and @pd>="20110215" | US-PGPUB; USPAT; UPAD | OR | OFF | 2011/07/27 14:51 |
| S39 | 153 | kim-sun$uk$.in. or hwang-soon $cheol$.in. or chun-myong $cheul$.in. | US-PGPUB; USPAT; UPAD | OR | OFF | 2009/11/02 11:01 |
| S40 | 5 | S39 and (silica or silicon).clm. | US-PGPUB; USPAT; UPAD | OR | OFF | 2009/11/02 11:02 |
| S55 | 164 | kim-sun$uk$.in. or hwang-soon $cheol$.in. or chun-myong $cheul$.in. | US-PGPUB; USPAT; UPAD | OR | OFF | 2010/08/10 17:08 |
| S56 | 5 | S55 and (silica or silicon).clm. | US-PGPUB; USPAT; UPAD | OR | OFF | 2010/08/10 17:08 |
| S69 | 174 | kim-sun$uk$.in. or hwang-soon $cheol$.in. or chun-myong $cheul$.in. | US-PGPUB; USPAT; UPAD | OR | OFF | 2011/02/15 17:51 |

| S70 | 10 | S69 and @pd>="20100809" | US-PGPUB; USPAT; UPAD | OR | OFF | 2011/02/15 17:51 |

**7/27/2011 2:52:45 PM**
**C:\ Documents and Settings\ esnelting\ My Documents\ EAST\ Workspaces\ 10560023.wsp**